



## Complete Summary

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### GUIDELINE TITLE

Outbreaks of Avian Influenza A (H5N1) in Asia and interim recommendations for evaluation and reporting of suspected cases-United States, 2004.

### BIBLIOGRAPHIC SOURCE(S)

Outbreaks of avian influenza A (H5N1) in Asia and interim recommendations for evaluation and reporting of suspected cases--United States, 2004. MMWR Morb Mortal Wkly Rep 2004 Feb 13;53(5):97-100. [5 references] [PubMed](#)

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## SCOPE

### DISEASE/CONDITION(S)

Avian influenza A (H5N1) infection

### GUIDELINE CATEGORY

Diagnosis  
Prevention

### CLINICAL SPECIALTY

Family Practice  
Infectious Diseases  
Internal Medicine  
Pediatrics  
Preventive Medicine

### INTENDED USERS

Advanced Practice Nurses  
Allied Health Personnel  
Clinical Laboratory Personnel  
Health Care Providers  
Hospitals  
Physician Assistants  
Physicians  
Public Health Departments  
Respiratory Care Practitioners

#### GUIDELINE OBJECTIVE(S)

- To summarize information about the human infections and avian outbreaks in Asia
- To provide recommendations to guide influenza A (H5N1) surveillance, diagnosis, and testing in the United States

#### TARGET POPULATION

Children and adults in the United States at risk for influenza A (H5N1) infection who have:

- radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternative diagnosis has not been established, and
- a history of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza infections in poultry or humans

Hospitalized or ambulatory children and adults in the United States with all of the following:

- documented temperature of  $>100.4^{\circ}\text{F}$  ( $>38^{\circ}\text{C}$ )
- cough, sore throat, or shortness of breath
- history of contact with poultry or domestic birds (e.g., visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected patient with influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset

#### INTERVENTIONS AND PRACTICES CONSIDERED

##### Prevention

1. Infection control precautions
  - Medical/travel history
  - Patient education regarding respiratory hygiene/cough etiquette
2. Isolation precautions in healthcare settings
3. Home isolation for discharged patients

##### Diagnosis and Testing

1. Laboratory testing procedures

- Biosafety Level (BSL)-3+ laboratory conditions
- Polymerase chain reaction (PCR) assays using standard Biosafety Level-2 work practices in a Class II biological safety cabinet
- Commercially available antigen-detection tests under Biosafety Level-2 levels
- Specimen testing by the Centers for Disease Control and Prevention (CDC)

#### MAJOR OUTCOMES CONSIDERED

- Incidence of Avian influenza (H5N1) infection world-wide
- Mortality associated with avian influenza in humans

### METHODOLOGY

#### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

#### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

#### NUMBER OF SOURCE DOCUMENTS

Not stated

#### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

#### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

#### METHODS USED TO ANALYZE THE EVIDENCE

Review

#### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

#### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

#### RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

## COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

Not stated

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

#### Interim Recommendations for U.S. Surveillance and Diagnostic Evaluation

The Centers for Disease Control and Prevention (CDC) recommends that state and local health departments, hospitals, and clinicians enhance their efforts to identify patients who could be infected by influenza A (H5N1) virus and take infection-control precautions when influenza A (H5N1) is suspected.

#### Interim Recommended Infection-Control Precautions\* for Influenza A (H5N1)

- All patients with a febrile respiratory illness should be asked about their recent travel history and managed using [Respiratory Hygiene/Cough Etiquette in HealthCare Settings guidelines](#).
- Isolation precautions for all hospitalized patients who have or are under evaluation for influenza A (H5N1) are the same as those that should be used for severe acute respiratory syndrome (SARS), as follows:
  - Pay careful attention to hand hygiene before and after all patient contact.
  - Use gloves and gown for all patient contact.
  - Wear eye protection when within 3 feet of the patient.
  - Place the patient in an airborne isolation room (i.e., monitored negative air pressure in relation to surrounding areas with 6 to 12 air changes per hour).
  - When entering the patient's room, use a fit-tested respirator at least as protective as an N95 filtering-facepiece respirator approved by the National Institute for Occupational Safety and Health.
- Outpatients or hospitalized patients discharged in <14 days should be isolated in the home setting on the basis of principles for home isolation of SARS patients (see guidance available at the [CDC Web site](#)).
- These precautions should be continued for 14 days after onset of symptoms until an alternative diagnosis is established or diagnostic test results indicate that the patient is not infected with influenza A virus.

\*Note: Additional information about health-care isolation precautions is available at the [CDC Web site](http://www.cdc.gov).

Testing of hospitalized patients for influenza A (H5N1) infection is indicated when both of the following exist: 1) radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternative diagnosis has not been established and 2) a history of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza infections in poultry or humans. Ongoing listings of countries affected by avian influenza are available from the World Organization for Animal Health. Available at [http://www.oie.int/eng/en\\_index.htm](http://www.oie.int/eng/en_index.htm)

Testing for influenza A (H5N1) also should be considered on a case-by-case basis in consultation with state and local health departments for hospitalized or ambulatory patients with all of the following: 1) documented temperature of >100.4°F (>38°C); 2) cough, sore throat, or shortness of breath; and 3) history of contact with poultry or domestic birds (e.g., visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected patient with influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

### Recommended Laboratory Testing Procedures

The highly pathogenic avian influenza A (H5N1) virus requires Biosafety Level (BSL)-3+ laboratory conditions for certain procedures. CDC recommends that virus isolation studies on respiratory specimens from patients who meet the testing criteria should not be performed unless all BSL-3+ conditions are met. However, clinical specimens can be tested by polymerase chain reaction (PCR) assays by using standard BSL-2 work practices in a Class II biological safety cabinet. CDC has developed real-time PCR protocols\*\* for various respiratory pathogens, including severe acute respiratory syndrome (SARS) and influenza A and B viruses. In addition, commercially available antigen-detection tests can be used under BSL-2 levels to test for influenza. Although these rapid tests for human influenza also can detect avian influenza A (H5N1) viruses, the sensitivity of these tests is substantially lower than that of virus culture or PCR.

Specimens from persons meeting clinical and epidemiologic indications for testing should be sent to CDC if they test positive for influenza A either by PCR or antigen detection testing, or if PCR assays for influenza are not available locally. CDC also will accept, for follow-up testing, specimens from persons meeting the clinical and epidemiologic indications but testing negative on the rapid tests when PCR assay was not available. Requests for testing by CDC should come through local and state health departments, which should contact CDC's Emergency Operations Center, telephone 770-488-7100.

\*\*Note: These protocols are available to public health laboratories and have been posted, under SARS (password required), by the Association of Public Health Laboratories at [http://www.aphl.org/members\\_only/index.cfm](http://www.aphl.org/members_only/index.cfm).

### CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not explicitly stated.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- Effective influenza A surveillance, diagnosis and testing in the United States
- Prevention of influenza A infection in the United States

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

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Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better  
Staying Healthy

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Outbreaks of avian influenza A (H5N1) in Asia and interim recommendations for evaluation and reporting of suspected cases--United States, 2004. MMWR Morb Mortal Wkly Rep 2004 Feb 13; 53(5):97-100. [5 references] [PubMed](#)

#### ADAPTATION

Not applicable: The guideline was not adapted from another source.

#### DATE RELEASED

2004 Feb 13

#### GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

#### SOURCE(S) OF FUNDING

United States Government

#### GUIDELINE COMMITTEE

Not stated

#### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

#### GUIDELINE STATUS

This is the current release of the guideline.

#### GUIDELINE AVAILABILITY

Electronic copies: Available from the Centers for Disease Control and Prevention (CDC) Web site:

- [HTML Format](#)
- [Portable Document Format \(PDF\)](#)

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

#### AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Interim recommendations for persons with possible exposure to avian influenza during outbreaks among poultry in the United States. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2004 Feb 24. 3 p.

Electronic copies: Available in HTML format from the [Centers for Disease Control and Prevention \(CDC\) Web site](#)

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

#### PATIENT RESOURCES

None available

#### NGC STATUS

This summary was completed by ECRI on February 26, 2004.

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